

# Context Sensitive Solutions And Transportation Decision- Making



Leigh B. Lane  
Environmental Planning Consultant  
Raleigh, NC  
919-787-6265



# Context Sensitive Solutions (CSS)

**“Context sensitive solutions asks questions first about the need and purpose of the transportation project, and then equally addresses safety, mobility, and the preservation of scenic, aesthetic, historic, environmental, and other community values. Context sensitive solutions involves a collaborative, interdisciplinary approach in which citizens are part of the design team”**

Thinking Beyond the Pavement, Maryland State Highway Administration  
Workshop, 1998: NCHRP 480 Report

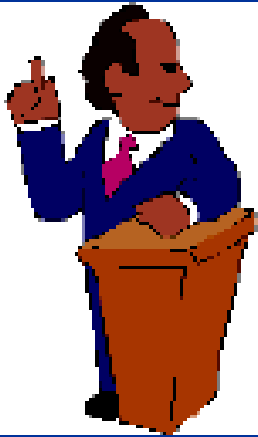
# Principles of CSS

- **Actively engage** communities and other stakeholders early and often (Meaningful public involvement)
- **Balance** safety, mobility, and economic goals with the preservation of environmental, scenic, aesthetic, historic, and cultural values
- Build projects that add lasting value to and **minimally disrupt** communities
- **Flexible** design process
- **Exceeds the expectations** of designers and stakeholders

Source: [www.fhwa.dot.gov/environment/strmlng/mar03nl.htm](http://www.fhwa.dot.gov/environment/strmlng/mar03nl.htm)

# Old System

- Reactive
- DAD



Decide on action

Announce decision  
to public

Defend decision

- Caused
  - Public mistrust
  - Litigation
  - Project delays
  - Higher overall project costs
  - Duplicative efforts
  - Poor relationships with agencies

*Source: KTC CSD Workshop*

# New System – Publicly Owned Project

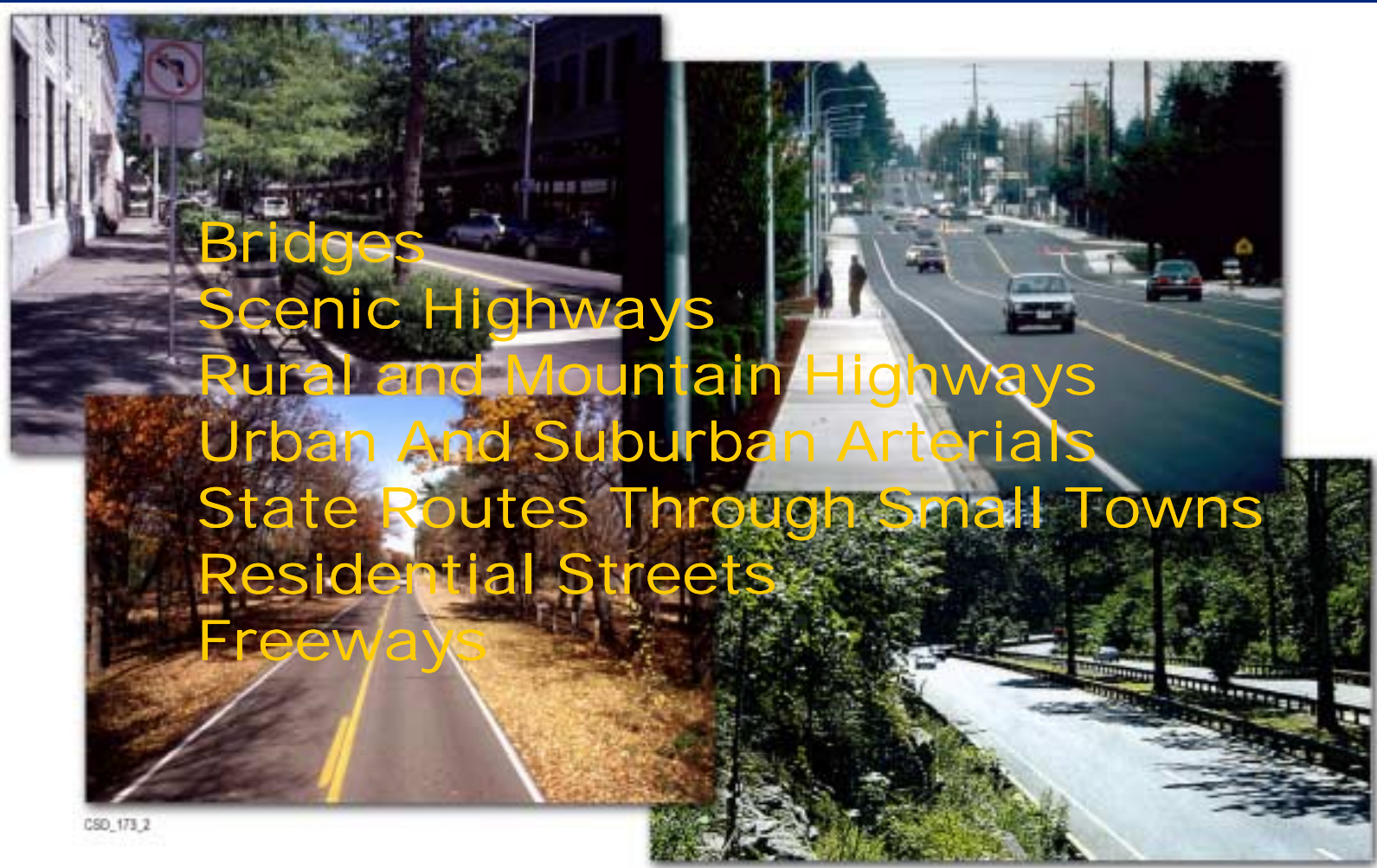
- Participatory process
- Broad stakeholder involvement
- Recognition of diverse perspectives
- Trust
- Accountability
- Objective, responsible transportation decisions



*Source: KTC CSD Workshop*



# Every Project has a Context



# Terrain



*SR 1005, NC*



# Community



*Chapel Hill, NC*

# Community



*Saxapahaw, NC*



# Natural Environment



*SR 1005, NC*

# Facility Users



*Source: KTC CSD Case Study - Euclid Avenue, KY*

# Facility Users



*SR 1005, NC*



# Surrounding Land Uses



*SR 1005, NC*

# WHAT MAKES A PLACE GREAT?

## PPS PROJECT FOR PUBLIC SPACES, INC.

153 WAVERLY PLACE  
NEW YORK, NY 10014

Phone (212) 620-5660  
Fax (212) 620-3821  
Email [pps@pps.org](mailto:pps@pps.org)  
Web site [www.pps.org](http://www.pps.org)

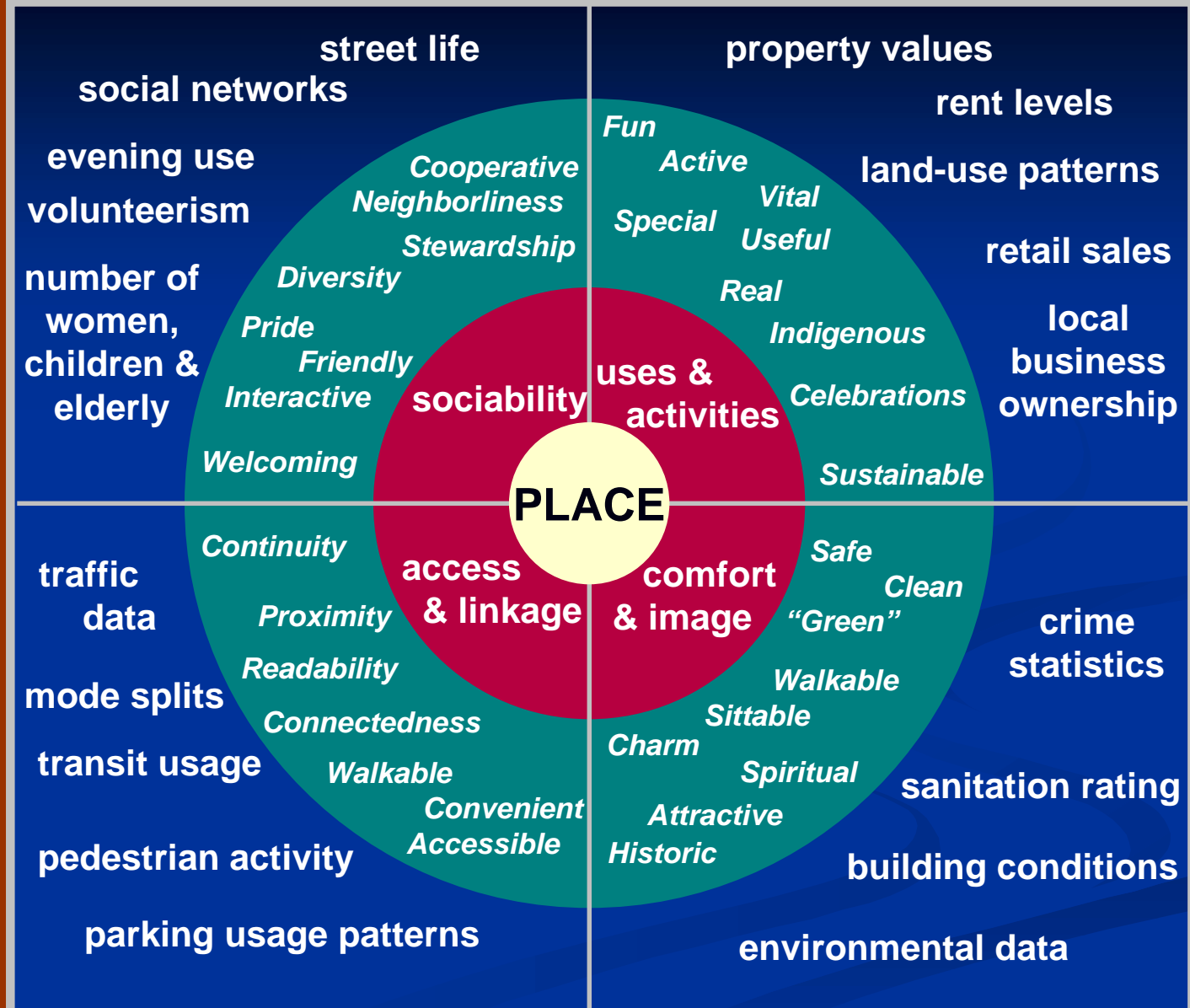
Parks, Plazas &  
Civic Squares

Transportation  
and Livable  
Communities

Public Buildings  
and Civic Design

Public Markets  
and Local  
Economies

■ key attributes  
■ intangibles  
■ measurements



BUILDING COMMUNITY - CREATING PLACES - USING COMMON SENSE



*Source: M. Ronkin, Oregon DOT*





*Source: M. Ronkin, Oregon DOT*

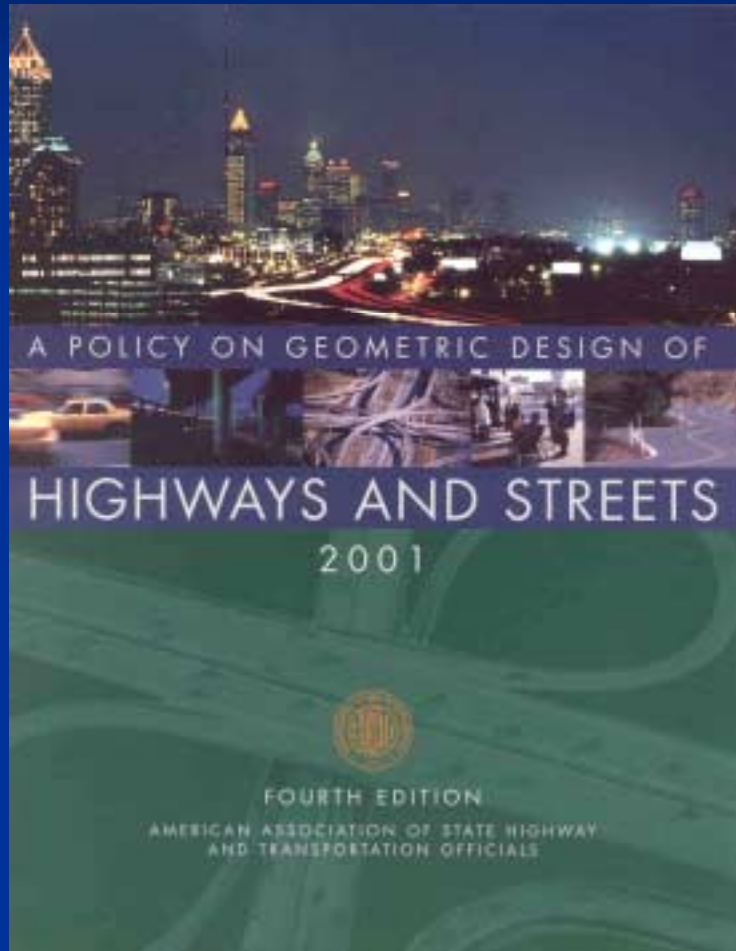
We shape our public spaces, and afterwards our public spaces shape us. – PPS, adapted from Winston Churchill



Project for Public Spaces,  
New York City, NY



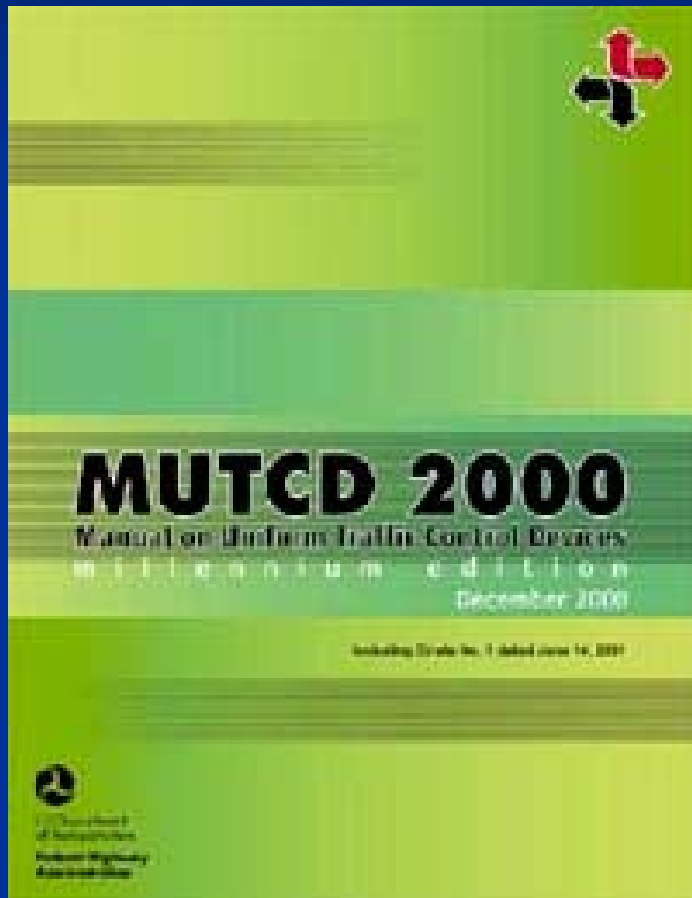
# Flexibility



**The intent of this policy is to provide guidance to the designer by referencing a recommended range of values for critical dimensions. It is not intended to be a detailed design manual....Sufficient flexibility is permitted to encourage independent designs tailored to particular situations**"

Foreward- AASHTO Policy on Geometric Design of Highways and Streets, 2001

# Flexibility



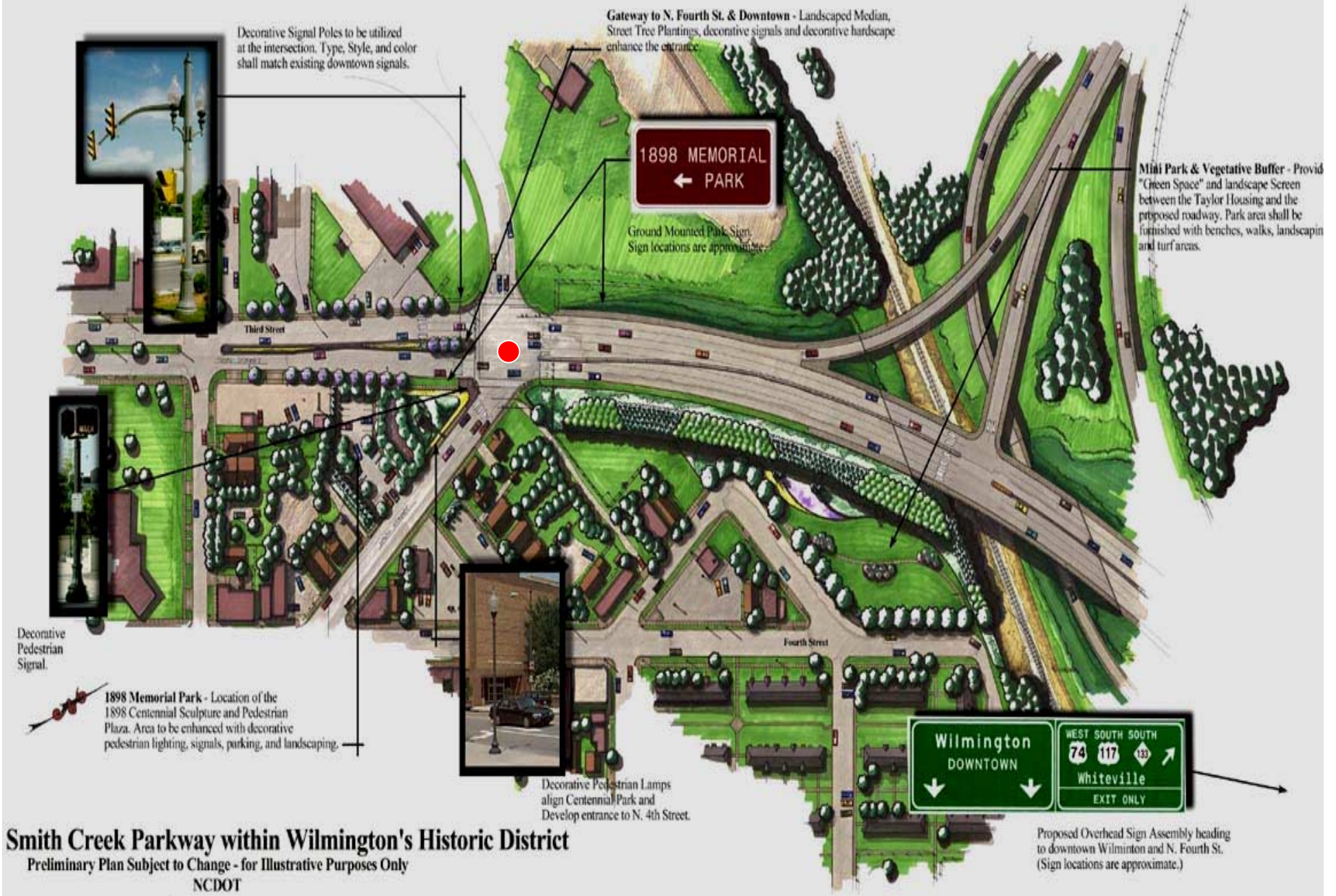
## Guidance:

“The decision to use a particular device at a particular location should be made on the basis of either an engineering study or the application of engineering judgment. Thus while this Manual provides Standards, Guidance, and Options for design and application of traffic control devices, this Manual SHOULD NOT be considered a substitute for engineering judgment.”

# What Does Success in Preserving Context Look Like?

- **Project**
  - Operates safely
  - Meets community and user needs
  - Satisfies transportation purpose and need
- **Project area interweaves, with minimal disruption,**
  - Transportation facility
  - Human environment
  - Natural environment





# Benefits of CSS

- Improves project quality
- Improves relationships with resource agencies, advocacy groups, and communities
- Expedites permit approval and project development
- Lowers administrative and mitigation costs



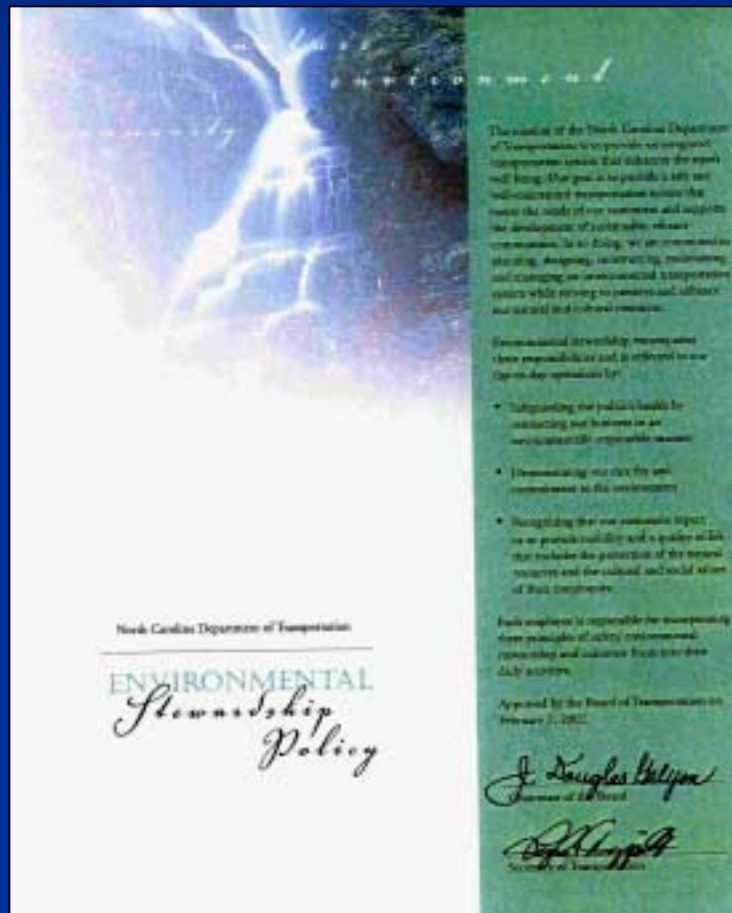
# Benefits of CSS

- Leads to cost effective environmental benefits
- Develops decisions that “stick”
- Limits redesigns
- Good Business Practice

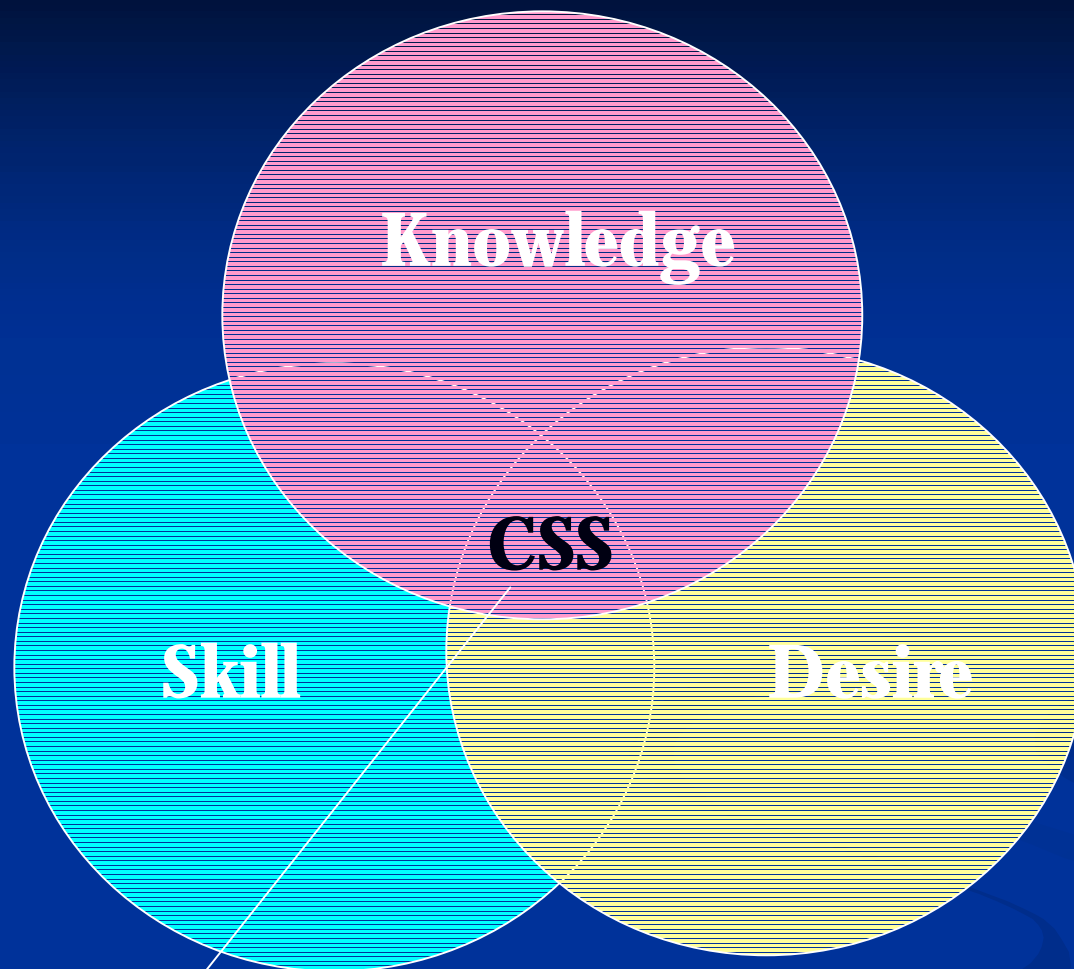
Source:

[www.fhwa.dot.gov/environment/strmlgn/mar03nl.htm](http://www.fhwa.dot.gov/environment/strmlgn/mar03nl.htm)

# NCDOT's Environmental Stewardship Policy



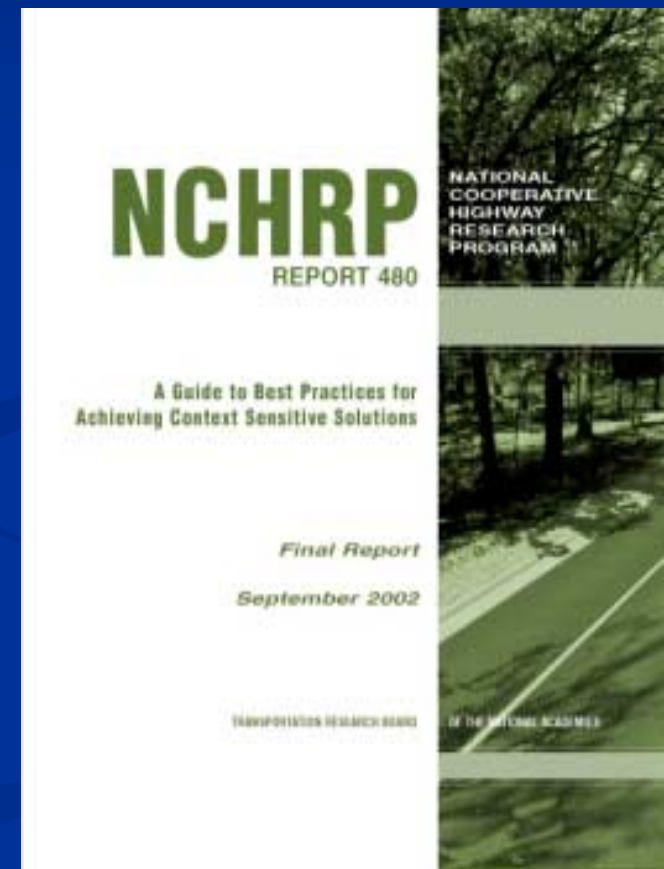
**Recognizing that our customers expect us to provide mobility and a quality of life that includes the protection of the natural resources and the cultural and social values of their community.**



**Habits**

# NCHRP Report 480 Documents 'Best Practices' for CSD/CSS

- Review of Literature
- Phone and personal interviews
- Visits to Pilot States
- Synthesis of documents and studies
- Collection of Case Studies
- Development of 'Best Practices' Guide and CD



# Resources

- Context Sensitive Design/Thinking Beyond the Pavement Website:  
<http://www.fhwa.dot.gov/csd/index.htm>
- Flexibility in Highway Design, FHWA, FHWA-PD-97-062:  
<http://www.fhwa.dot.gov/environment/nepa/fhd.htm>
- Community Impact Mitigation Case Studies, FHWA-PD-98-024:  
<http://www.ciatrans.net/casestud.html>
- NCHRP 480: A Guide to Best Practices for Achieving CSS:  
<http://www.national-academies.org/trb/bookstore>
- Environmental Stewardship: AASHTO Center for Environmental Excellence:  
<http://www.itre.ncsu.edu/AASHTO/stewardship/approaches.asp>